REMARKS

Claims 1 through 35, 37, 38, 39, 41 through 44 and 48 through 51 remain in this application for active consideration. Claims 36, 40, 45, 46 and 47 have been canceled.

In the presently outstanding FINAL action, although the action seems somewhat ambiguous, it appears that claims 1 through 25, 27 through 35, 37, 43 through 45 and 47 through 51 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Waugh (US 4,936,045) in view of Smit et al. (US 4,582,512) and Kindig et al. (US 4,695,290), claims 26, 29 and 30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Waugh in view of Smit et al. and Kindig et al. and further in view of Schapiro (US 4,618,346), and claims 37 through 39, 41 and 42 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Waugh in view of Smit et al. and Kindig et al. and Kamino et al. (US 4,424,062). In addition to the foregoing, claim 47 remains rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants respectfully traverse the stated rejections and submit that in view of the foregoing amendments and the following remarks, claims 1 through 35, 37, 38, 39, 41 through 44 and 48 through 51 are patentable over the cited references and that the application is otherwise in condition for allowance.

Support for the amendments to claim 1 can be found in paragraphs [0061] and [0098] of the originally filed application. Moreover, there is nothing in the disclosures of Waugh, Smit et al. and Kindig et al, whether these references are considered alone or in some sort of combination, which relates to or suggests a process according to claim 1 where Si, Fe and/or Ti are removed from the coal.

Waugh does not disclose or suggest the removal of Si, Fe and/or Ti from coal in a hydrothermal washing step.

Smit et al. describe a three step process comprising (1) a sodium hydroxide leach, followed by (2) a hydrochloric acid leach and then (3) a high temperature water or ammonia leach. In this embodiment, step (3) is comparative to the hydrothermal washing step. The objective of the high temperature water or ammonia leach is stated as being "... to reduce the residual sodium and chlorine content of the coal to as low a level as possible." (Column 4, lines 33-35). Smit teaches that the purpose of the high temperature water or ammonia leach is solely for Na and CI removal. This differs from the present invention. In particular, it is made clear in accordance with paragraph [0098] of the present application that "the hydrothermal washing process reduces the level of ... silicon, iron and titanium in the coal." Furthermore, Smit et al. do not disclose use of polar organic solvents or citric acid, as disclosed in the present invention, in the hydrothermal wash step. As such, Smit et al. do not teach that the hydrothermal wash step be conducted with a compound capable of expanding the coal structure to effect removal of inclusions, particularly Si, Fe and/or Ti.

Kindig et al. teach that "additional halogen removal can also be effected by addition of various compounds such as acetic acid, nitric acid, alcohol (90% ethanol, 5% methanol and 5% isopropyl) and ammonium hydroxide". Halogens refer specifically to the non metallic group 17 elements, such as F, CI, Br and I etc. Applicants contend that the present application makes no mention of the removal of halogens, or the desire to remove them. As stated previously, it is made clear that the hydrothermal wash step of the present invention is for the purpose of removing Si, Fe and/or Ti. Indeed, there does not appear to be anything in the Kindig et al. disclosure to suggest that the use of acetic acid, nitric acid, alcohol or ammonium hydroxide at low temperatures will remove Si, Fe or Ti. Furthermore, the present invention particularly claims the use of either water and citric acid or water and a polar organic solvent

under hydrothermal conditions. Kindig et al. make no mention of citric acid, and offers a specific alcohol blend as opposed to a polar organic solvent, specifically ethanol.

Waugh has nothing to do with the removal of Si, Fe and/or Ti from coal in a hydrothermal washing step. Smit et al. teach a hydrothermal wash process, using water or aqueous ammonia at high temperature and pressure, for removal of Na and Cl. Kindig et al. teach use of acetic acid, nitric acid, alcohols or ammonium hydroxide at low temperatures for the removal of halogens. It would not be obvious for the skilled person to even try a reagent for low temperature removal of halogens for the high temperature removal of non-halide materials such as Si, Fe and/or Ti as in the present invention.

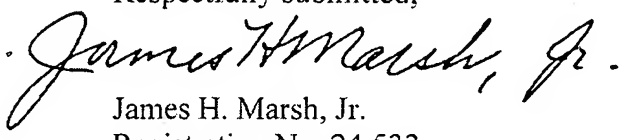
Even if one of ordinary skill in the art were to consider it obvious to try the reagents of Kindig et al. in the processes of Smit et al. and Waugh, he or she would do so without any expectation of success. Neither Smit et al. nor Waugh discuss a hydrothermal step for removal of Si, Fe and/or Ti. Neither Smit et al. nor Waugh teaches the use of ethanol or citric acid under hydrothermal conditions for the removal of Si, Fe and/or Ti. Accordingly, applicants submit that combination of these cited references does not render the present invention obvious.

Accordingly, it is submitted that amended claim 1 is patentable over Waugh, Smit et al. and Kindig et al., whether these references are considered alone or in combination. Moreover, since independent claim 1 is patentable, all of the other remaining claims, which depend either directly or indirectly from claim 1, are also patentable over the cited art.

In view of the foregoing amendments and remarks, it is respectfully submitted that the claims remaining in the application for active consideration are free of the cited prior art and that the application is otherwise in condition for allowance. Accordingly, favorable action at

an early date will be appreciated. If the examiner is of the view that any issue remains unresolved, it is respectfully suggested that applicants' undersigned attorney may be contacted at the telephone number set forth below.

Respectfully submitted,



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